Serial No.: 10/509,312
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AMENDMENT TO THE CLAIMS

1. (currently amended) A method for providing data service in a hybrid network, wherein the hybrid network includes a Mobile Station (MS), a Radio Access Network (RAN) of a first technology and a Core Network (CN) of a second technology, the method comprising:

exchanging messages between the MS and the RAN of a first technology and between the RAN of a first technology and the CN of a second technology through a Hybrid Atrium located in the CN, wherein the Hybrid Atrium includes an ability to exchange short messages directly with the MS.

2. (original) The method of claim 1, wherein exchanging the messages includes:

initiating a data session by the MS with the Hybrid Atrium through a Base Station Controller;

updating a Home Location Register (HLR) by the Hybrid Atrium;

informing a Quality of Service (QoS) by the HLR; and

negotiating a QoS by the Hybrid MSC.

3. (original) The method of claim 2, further including:

sending a Short Message to the MS from the Hybrid Atrium; and

sending a Short Message reply from the MS to the Hybrid Atrium.

4. (previously presented) The method of claim 3, further including:

establishing a Point to Point Protocol (PPP) connection directly between the Hybrid Atrium and the MS; and

establishing user data transmission directly between the Hybrid Atrium and the MS.

5. (original) The method of claim 1, further including updating the CN with a data session context update through the Hybrid Atruim.

6. (previously presented) The method of claim 1, wherein the exchanging of messages includes:

establishing a Point to Point Protocol (PPP) connection directly between the Hybrid Atrium and the MS;

sending a termination request from a Base Station Controller (BSC) for the MS to the Hybrid Atrium;

exchanging messages between the Hybrid Atrium and the CN to terminate the PPP connection; and

terminating the PPP connection between the Hybrid Atrium and the MS.

7. (previously presented) The method of claim 1, wherein the exchanging of messages includes:

establishing a Point to Point Protocol (PPP) connection directly between the Hybrid Atrium and the MS;

sending a termination request from the CN to the Hybrid Atrium;

exchanging messages between the Hybrid Atrium and a Base Station Controller for the MS to terminate the PPP connection; and

terminating the PPP connection between the Hybrid Atrium and the MS.

8. (original) The method of claim 1, wherein the exchanging of messages includes an ability to hand-off between Packet Data Service Nodes.

9. (original) The method of claim 1, wherein the exchanging of messages includes an ability to hand-off between Serving General Packet Radio Service Serving Nodes.

10. (original) The method of claim 1, wherein the exchanging of messages includes an ability to hand-off between a Packet Data Service Node and a Serving General Packet Radio Service Serving Node.

11. (currently amended) A system for providing data service in a hybrid network, wherein the hybrid network includes a Mobile Station (MS), a Radio Access Network (RAN) of a first technology and a Core Network (CN) of a second technology, the system comprising:

a Hybrid Atrium located in the CN that enables exchanging messages from the MS and the RAN of a first technology to the CN of a second technology, wherein the Hybrid Atrium includes an ability to exchange short messages directly with the MS.

12. (original) The system of claim 11, wherein the exchanging the messages includes:

a Base Station Controller in communications with the MS, wherein the MS initiates a data session with the Hybrid Atrium through the Base Station Controller and wherein the Hybrid Atrium updates a Home Location Register (HLR) and wherein the HLR establishes a Quality of Service (QoS).

13. (original) The system of claim 12, wherein the Hybrid Atrium sends a Short Message to the MS; and wherein the MS sends a Short Message reply to the Hybrid Atrium.

14. (previously presented) The system of claim 13, wherein a Point to Point Protocol (PPP) connection is established directly between the Hybrid Atrium and the MS and wherein a user data transmission is established between the Hybrid Atrium and the MS.

15. (original) The system of claim 11, wherein the CN is updated with a data session context update through the Hybrid Atruim.

16. (previously presented) The system of claim 11, further including a Point to Point Protocol (PPP) connection established directly between the Hybrid Atrium and the MS and wherein a termination request is sent from a Base Station Controller (BSC) for the MS to the Hybrid Atrium and wherein messages are exchanged between the Hybrid Atrium and the CN to terminate the PPP connection and the PPP connection is terminated between the Hybrid Atrium and the MS.

17. (previously presented) The system of claim 11, wherein a Point to Point Protocol (PPP) connection is established directly between the Hybrid Atrium and the MS, a termination request is

sent from the CN to the Hybrid Atrium, messages are exchanged between the Hybrid Atrium and a Base Station Controller for the MS to terminate the PPP connection, and the PPP connection is terminated between the Hybrid Atrium and the MS.

18. (original) The system of claim 11, further including an ability to hand-off between Packet Data Service Nodes.

19. (original) The system of claim 11, further including an ability to hand-off between Serving General Packet Radio Service Serving Nodes.

20. (original) The system of claim 11, further including an ability to hand-off between a Packet Data Service Node and a Serving General Packet Radio Service Serving Node.

21. (currently amended) A method for providing data service in a hybrid network, wherein the hybrid network includes a Mobile Station (MS), a Radio Access Network (RAN) of a first technology and a Core Network (CN) of a second technology, the method comprising:

exchanging messages between the MS and the RAN of a first technology and between the RAN of a first technology and the CN of a second technology through a Hybrid Atrium <u>located in the CN</u>, wherein the Hybrid Atrium includes an ability to exchange short messages directly with the MS and wherein the Hybrid Atrium exchanges messages with a Serving General Packet Radio Service (GPRS) Serving Node, Gateway GPRS Service Node, and a Packet Data Service Node.